

IN THE CLAIMS

Please amend the claims as follows:

1. (Original): A mobile station comprising:

a transmit buffer for storing data about a plurality of communication services on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel;

an amount-of-data information determining means for monitoring the data which are stored in said transmit buffer on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel so as to determine communication-service-by-communication-service or transmit-channel-by-transmit-channel amount-of-data information; and

a transmitting means for transmitting the communication-service-by-communication-service or transmit-channel-by-transmit-channel amount-of-data information determined by said amount-of-data information determining means to a base station.

2. (Currently Amended): The mobile station according to Claim 1, ~~characterized in that~~ wherein said amount-of-data information determining means converts the communication-service-by-communication-service or transmit-channel-by-transmit-channel amount-of-data information into a binary digit number, and outputs the amount-of-data information indicating the binary digit number to the transmitting means.

3. (Currently Amended): The mobile station according to Claim 1, ~~characterized in that~~ wherein said amount-of-data information determining means converts the communication-service-by-communication-service or transmit-channel-by-transmit-channel

amount-of-data information into a data occupation ratio of the transmit buffer, and outputs the amount-of-data information indicating the data occupation ratio to the transmitting means.

4. (Currently Amended): The mobile station according to Claim 1, ~~characterized in that~~ wherein said amount-of-data information determining means converts the communication-service-by-communication-service or transmit-channel-by-transmit-channel amount-of-data information into a time, and outputs the amount-of-data information indicating the time to the transmitting means.

5. (Currently Amended): The mobile station according to Claim 1, ~~characterized in that~~ wherein said amount-of-data information determining means converts the communication-service-by-communication-service or transmit-channel-by-transmit-channel amount-of-data information into a transmission rate, and outputs the amount-of-data information indicating the transmission rate to the transmitting means.

6. (Currently Amended): The mobile station according to Claim 5, ~~characterized in that~~ wherein said amount-of-data information determining means converts the communication-service-by-communication-service or transmit-channel-by-transmit-channel amount-of-data information into a number of bits per second or a number of bits per unit time.

7. (Currently Amended): The mobile station according to Claim 1, ~~characterized in that~~ wherein said amount-of-data information determining means converts the communication-service-by-communication-service or transmit-channel-by-transmit-channel amount-of-data information into a channel amplitude coefficient or a channel amplitude

coefficient ratio, and outputs the amount-of-data information indicating the channel amplitude coefficient or the channel amplitude coefficient ratio to the transmitting means.

8. (Currently Amended): The mobile station according to Claim 1, ~~characterized in that~~ wherein said amount-of-data information determining means converts the communication-service-by-communication-service or transmit-channel-by-transmit-channel amount-of-data information into a power dimension or a power dimension ratio, and outputs the amount-of-data information indicating the power dimension or the power dimension ratio to the transmitting means.

9. (Currently Amended): The mobile station according to Claim 1, ~~characterized in that~~ wherein said amount-of-data information determining means outputs an index indicating a combination of pieces of communication-service-by-communication-service or transmit-channel-by-transmit-channel amount-of-data information to the transmitting means, instead of the communication-service-by-communication-service or transmit-channel-by-transmit-channel amount-of-data information.

10. (Original): A base station comprising:  
a receiving means for receiving communication-service-by-communication-service or transmit-channel-by-transmit-channel amount-of-data information from a mobile station;  
an assignment determining means for determining assignment of radio resources for data on a communication-service-by-communication-service or transmit-channel-by-transmit-channel basis according to the communication-service-by-communication-service or transmit-channel-by-transmit-channel amount-of-data information received by said receiving means; and

a notifying means for notifying transmission control information indicating the assignment of radio resources determined by said assignment determining means to said mobile station.

11. (Currently Amended): A communication system provided with a base station which notifies transmission control information indicating a data transmission timing, and a mobile station which transmits data to said base station according to the transmission control information notified from said base station, ~~characterized in that~~

said mobile station comprising includes:

a transmit buffer for storing data about a plurality of communication services on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel;

an amount-of-data information determining means for monitoring the data which are stored in said transmit buffer on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis so as to determine communication-service-by-communication-service or transmit-channel-by-transmit-channel amount-of-data information; and

a transmitting means for transmitting the communication-service-by-communication-service or transmit-channel-by-transmit-channel amount-of-data information determined by said amount-of-data information determining means to said base station,

and ~~characterized in that~~ said base station comprising includes:

a scheduler for assigning resources used for carrying out data transmission to said mobile station on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis according to the amount-of-data information received from said mobile station.

12. (Original): An amount-of-data information transmission method comprising the steps of:

monitoring data which are transmitted from a terminal on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis;

determining amount-of-data information indicating an amount of data on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis; and

transmitting the amount-of-data information which is determined on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis to a base station.

13. (Original): A transmission-control-information notification method comprising the steps of:

when a base station receives amount-of-data information which is determined on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis from a mobile station, determining a data transmission timing on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis according to the amount-of-data information; and

notifying transmission control information indicating the data transmission timing to said mobile station.

14. (Original): A wireless communication method comprising the steps of:

when data about a plurality of communication services are stored in transmit buffers on a communication-service-by-communication-service basis or on a transmit-channel-by-

transmit-channel basis, monitoring the data which are stored in the transmit buffers on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis;

determining amount-of-data information indicating an amount of data on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis;

transmitting the amount-of-data information which is determined on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis to a base station;

when the base station receives the amount-of-data information which is determined on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis from a mobile station, determining a data transmission timing on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis according to the amount-of-data information;

notifying transmission control information indicating the data transmission timing to said mobile station; and

said mobile station transmitting the data to said base station on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis according to the transmission control information notified from said base station.